

Abstract

Title: Study of relationship between T+45G in Adiponectin gene polymorphism with insulin resistance and obesity in non-alcoholic fatty liver patients

Backgrounds and Aims: Genetic and environmental factors are both involved in etiology of non-alcoholic fatty liver disease (NAFLD). Among the genetic factors, some polymorphisms of adiponectin gene are associated with NAFLD. The gene coding for adiponectin is involved in regulating glucose levels as well as fatty acid breakdown. The purpose of this study is Study of relationship between T+45G in Adiponectin gene polymorphism with insulin resistance and obesity in non-alcoholic fatty liver patients.

Methods: In this study, 75 patients with NAFLD and 75 healthy individuals were enrolled. Insulin resistance was estimated by the homeostasis model (HOMA-IR) and obesity by BMI are measured with different genotypes.

Results: in order to different genotypes of this polymorphism (TT, TG, GG), in our study, no significant difference was observed in mean age and BMI between NAFLD and healthy control groups; However, WC and WHR in NAFLD patients with GG genotype were significantly higher compared with control group. insulin resistance had not shown significant association with different genotypes of T+45G polymorphism in NAFLD patients.

Conclusions: In order to the gene coding for adiponectin is involved in regulating fatty acid; Our results demonstrated waist circumference (abdominal obesity) in NAFLD group is more than healthy individuals; it was quiet evident in NAFLD Patients with GG genotype.

Keywords: Adiponectin gene, T+45G polymorphism, nonalcoholic fatty liver disease (NAFLD), insulin resistance, obesity